

WHAT IS CLAIMED IS:

1. A method implemented in a mobile terminal for use in setting up a multimedia session between the mobile terminal and a remote host by way of an access point coupled to a packet data network, comprising:

5 sending a request message associated with the multimedia session to the access point requesting a packet access bearer between the mobile terminal and the access point, and

setting an indicator in the request message indicating that the access point should function as a communications protocol proxy for the mobile terminal for a media data stream of the multimedia session.

2. The method in claim 1, wherein the request message indicates a particular quality of service associated with the packet access bearer.

3. The method in claim 1, wherein the communications protocol is used to reserve communication resources for the media data stream of the multimedia session.

4. The method in claim 3, wherein the communications protocol is the resource reservation protocol (RSVP), and the communications protocol proxy is an RSVP proxy for the mobile terminal during the multimedia session.

5. The method in claim 4, wherein the request message is a Packet Data Protocol (PDP) context request message and the indicator is an RSVP proxy flag.

6. The method in claim 5, wherein the PDP context request message includes the RSVP proxy flag as a PDP configuration option (PCO).

7. The method in claim 1, wherein the mobile terminal is a user equipment that communicates with a General Packet Radio Service (GPRS) access network by way of a Universal Mobile Telecommunication Services (UMTS)

Terrestrial Radio Access Network (UTRAN), and wherein the access point is a Gateway GPRS Service Node (GGSN).

8. A method implemented in an access point coupled to a packet data network for use in setting up a multimedia session between a mobile terminal and a remote host, comprising:

receiving from the mobile terminal a request message for a packet access bearer between the mobile terminal and the access point for the multimedia session;

detecting an indicator in the request message indicating that the access point should function as a communications protocol proxy for the mobile terminal for a media data stream of the multimedia session; and

performing as the communications protocol proxy for the mobile terminal for the media data stream of the multimedia session.

9. The method in claim 10, wherein the request message indicates a particular quality of service associated with the packet access bearer.

10. The method in claim 8, wherein the communications protocol is used to reserve communication resources for the media data stream of the multimedia session.

11. The method in claim 10, wherein the communications protocol is the resource reservation protocol (RSVP), and the communications protocol proxy is an RSVP proxy for the mobile terminal during the multimedia session.

12. The method in claim 11, wherein the request message is a packet data protocol (PDP) context request message and the indicator is an RSVP proxy flag.

13. The method in claim 11, further comprising:

when the indicator is set, installing an RSVP proxy state process for the media data stream of the multimedia session in the access point from a multimedia server.

14. The method in claim 13, wherein when the RSVP proxy state process for the multimedia session is installed in the access point, the access point generates an RSVP PATH message directed to the remote host and in response thereto receives an RSVP RESV message from the remote host on behalf of the mobile terminal, the access point storing information received in the RSVP RESV message from the remote host.

15. The method in claim 13, wherein the access point retrieves authorization information for the media data stream of the multimedia session from a multimedia server.

16. The method in claim 13, wherein the access point retrieves quality of service information for the media data stream of the multimedia session and uses the retrieved quality of service information to generate and respond to RSVP messages on behalf of the mobile terminal.

17. The method in claim 8, wherein the mobile terminal is a user equipment that communicates with a General Packet Radio Service (GPRS) access network by way of a Universal Mobile Telecommunication Services (UMTS) terrestrial radio access network (UTRAN), and wherein the access point is a gateway GPRS service node (GGSN).

18. A mobile terminal comprising electronic circuitry capable of communicating with an access point coupled to a packet data network by way of a radio access network and being configured to perform the following tasks:

send a request message associated with the multimedia session to the access point requesting a packet access bearer between the mobile terminal and the access point, and

set an indicator in the request message indicating that the access point should function as a communications protocol proxy for the mobile terminal for the media data stream of the multimedia session.

19. The mobile terminal in claim 18, wherein the request message indicates
5 a particular quality of service for the packet access bearer.

20. The mobile terminal in claim 18, wherein the communications
protocol is used to reserve communication resources for the media data stream of the
multimedia session.

21. The mobile terminal in claim 20, wherein the communications
10 protocol is the resource reservation protocol (RSVP), and the communications
protocol proxy is an RSVP proxy for the mobile terminal for the media data stream
during the multimedia session.

22. The mobile terminal in claim 21, wherein the request message is a
15 Packet Data Protocol (PDP) context request message and the indicator is an RSVP
proxy flag.

23. The mobile terminal in claim 22, wherein the PDP context request
message includes the RSVP proxy flag as a PDP configuration option (PCO).

24. The mobile terminal in claim 18, wherein the mobile terminal is a user
20 equipment that communicates with a General Packet Radio Service (GPRS) access
network by way of a Universal Mobile Telecommunication Services (UMTS)
Terrestrial Radio Access Network (UTRAN), and wherein the access point is a
gateway GPRS service node (GGSN).

25. An access point capable of communicating with a packet data network
for use in setting up a multimedia session between a mobile terminal and a remote
25 host, comprising electronic circuitry configured to perform the following tasks:

receive from the mobile terminal a request message for a packet access bearer between the mobile terminal and the access point for the multimedia session;

detect an indicator in the request message indicating that the access point should function as a communications protocol proxy for the media data stream of the mobile terminal for the multimedia session; and

perform as the communications protocol proxy for the media data stream of the mobile terminal for the multimedia session.

26. The access point in claim 25, wherein the request message indicates a particular quality of service for the packet access bearer.

27. The access point in claim 25, wherein the communications protocol is used to reserve communication resources for the media data stream of the multimedia session.

28. The access point in claim 27, wherein the communications protocol is the resource reservation protocol (RSVP), and the communications protocol proxy is an RSVP proxy for the mobile terminal for the media data stream during the multimedia session.

29. The access point in claim 28, wherein the request message is a packet data protocol (PDP) context request message and the indicator is an RSVP proxy flag.

30. The access point in claim 28, further comprising:
when the indicator is set, installing an RSVP proxy state process for the media data stream of the multimedia session in the access point from a multimedia server.

31. The access point in claim 30, wherein when the RSVP proxy state process for the media data stream of the multimedia session is installed in the access point, the access point generates an RSVP PATH message directed to the remote

host and in response thereto receives an RSVP RESV message from the remote host on behalf of the mobile terminal, the access point storing information received in the RSVP RESV message from the remote host.

32. The access point in claim 30, wherein the access point retrieves
5 authorization information for the media data stream of the multimedia session from a multimedia server.

33. The access point in claim 30, wherein the access point retrieves quality
of service information associated with the multimedia session and uses the retrieved
quality of service information to generate and respond to RSVP messages on behalf
10 of the mobile terminal.

34. The access point in claim 25, wherein the mobile terminal is a user
equipment that communicates with a General Packet Radio Service (GPRS) access
network by way of a Universal Mobile Telecommunication Services (UMTS)
terrestrial radio access network (UTRAN), and wherein the access point is a gateway
15 GPRS service node (GGSN).

35. A computer generated data signal embodied in an electrical signal for
use in a General Packet Radio Service (GPRS)/ Universal Mobile
Telecommunication Services (UMTS) network comprising:

a Packet Data Protocol (PDP) context activation, creation, modification, or
20 update message for establishing or updating a multimedia session between a mobile
terminal and a remote host, the PDP context activation, creation, modification, or
update message having plural fields of information including a PDP configuration
options (PCO) field that includes an indicator indicating whether the access point
should function as a communications protocol proxy for the mobile terminal for the
25 media data stream of the multimedia session.

36. The computer generated data signal in claim 35, wherein the indicator field is part of an authorization token associated with the multimedia session.

37. The computer generated data signal in claim 36, wherein the authorization token further includes one or both of a session identifier and a media binding identifier.

38. A communications system, comprising:

a mobile terminal configured to initiate a multimedia session with a remote host;

a General Packet Radio Service (GPRS) network coupled to an Internet to which the remote host is coupled to through an access network including a gateway GPRS service node (GGSN);

a access network by way of a Universal Mobile Telecommunication Services (UMTS) Terrestrial Radio Access Network (UTRAN) coupled to the GPRS network and communicating with the mobile terminal over a radio interface;

wherein the mobile terminal sends a Packet Data Protocol (PDP) context request message associated with the multimedia session to the GGSN requesting a packet access bearer between the mobile terminal and the access point and sets an indicator in the PDP context request message indicating that the GGSN should function as a communications protocol proxy for the mobile terminal for the media data stream of the multimedia session, and

wherein receives the PDP context request message, detects the indicator, and performs as the communications protocol proxy for the mobile terminal for the media data stream of the multimedia session.

39. The communications system in claim 38, wherein the request message indicates a particular quality of service for the packet access bearer, the communications protocol is the resource reservation protocol (RSVP), and the

GGSN is an RSVP proxy for the media data stream of the mobile terminal during the multimedia session.

40. The communications system in claim 39, further comprising a multimedia system server, wherein when the indicator is set, an RSVP proxy state
5 process for the media data stream of the multimedia session is installed in the GGSN by the multimedia server.

41. The communications system in claim 40, wherein the GGSN RSVP proxy generates an RSVP PATH message directed to the remote host and receives an RSVP RESV message from the remote host on behalf of the mobile terminal, the
10 GGSN storing information received in the RSVP RESV message from the remote host.